

WHAT IS CLAIMED IS:

1. A method of creating a virtual memory space in a
memory, said method comprising:
5 determining whether additional memory space is
needed in said memory;
 if additional memory space is needed, compressing
selected portions of memory content stored in said
memory; and
10 releasing memory space which is no longer needed by
said compressed selected portions of memory content for
use as virtual memory space.
2. The method according to claim 1, wherein a plurality of
15 fixed compression tables are defined for realizing said
compression, each fixed compression table associating
possible values of memory content to values of a
compression code, said method further comprising
associating to a respective portion of memory content
20 the fixed compression table resulting in the highest
compression when applied to this portion of memory
content.
3. The method according to claim 2, wherein said fixed
25 compression tables are predetermined.
4. The method according to claim 2, wherein said fixed
compression tables are generated at an initialization
of said memory based on available portions of memory
30 content.
5. The method according to claim 4, wherein said fixed
compression tables are updated at regular intervals
based on available portions of memory content.

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6. The method according to claim 2, wherein in addition to said fixed compression tables, a null-table is provided which can equally be associated to a respective portion of memory content and which causes that no modification
5 is applied to a selected portion of memory content to which said null-table is associated.
7. The method according to claim 2, wherein in addition to said fixed compression tables, an own-compression-table
10 is provided which can equally be associated to a respective portion of memory content and which indicates that a portion of memory content to which it is associated has its own compression algorithm co-located and that this own compression algorithm is to
15 be used for a compression of said portion of memory content when selected.
8. The method according to claim 2, wherein a fixed compression table is associated to a respective portion
20 of memory content when said portion of memory content is written into said memory.
9. The method according to claim 2, wherein a fixed compression table is selected for association to a
25 particular portion of memory content based on samples of said particular portion of memory content.
10. The method according to claim 1, wherein portions of memory content are selected for compression which
30 belong to a currently inactive process.
11. The method according to claim 1, wherein different priorities are assigned to different portions of memory content, and wherein those portions of memory content
35 are selected for compression to which the lowest

priority has been assigned among all uncompressed portions of memory content.

- 5 12. The method according to claim 1, further comprising monitoring whether sufficient memory space is available in said memory and decompressing compressed portions of memory content of said memory as soon as sufficient memory space is available in said memory.
- 10 13. The method according to claim 1, further comprising decompressing a compressed portion of memory content of said memory as soon as a process to which said compressed portion of memory content belongs becomes active.
- 15 14. The method according to claim 1, further comprising when reporting to an application the status of the memory, reporting a status which would be given in case of a completely decompressed memory content.
- 20 15. The method according to claim 1, wherein said memory is an executable memory, to which said portions of memory content are provided by a solid-state memory based on demand paging.
- 25 16. A memory manager for controlling a memory, said memory manager comprising:
- a monitoring component monitoring whether additional memory space is needed in said memory; and
 - 30 - a compression component compressing selected portions of memory content stored in said memory, in case said monitoring component determines that additional memory space is needed, and releasing memory space which is no longer needed by said

compressed selected portions of memory content for use as virtual memory space.

17. A system comprising:

- 5 - a memory; and
- a memory manager monitoring whether additional memory space is needed in said memory, compressing selected portions of memory content stored in said memory, in case it is determined that additional
10 memory space is needed, and releasing memory space which is no longer needed by said compressed selected portions of memory content for use as virtual memory space.

15 18. A software program product in which a software code for creating virtual memory space in a memory is stored, said software code realizing the following steps when running in a memory manager controlling said memory:

- 20 determining whether additional memory space is needed in said memory;
- if additional memory space is needed, compressing selected portions of memory content stored in said memory; and
- 25 releasing memory space which is no longer needed by said compressed selected portions of memory content for use as virtual memory space.